

epiTRENDS

A Monthly Bulletin on Epidemiology and Public Health Practice in Washington State

A New Season, a New Plan: Preventing Oyster-Associated Vibriosis

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During the summer of 2006, health districts reported an unprecedented increase in gastroenteritis cases associated with the consumption of raw oysters. From May through August last year, 267 confirmed and probable reports of vibriosis cases attributed to Washington grown oysters were reported from Washington and six other states or provinces.

Vibrio occur naturally in coastal waters, particularly with warmer water temperatures. *Vibrio parahaemolyticus*, one of several *Vibrio* species pathogenic to humans, is the most common cause of shellfish-associated illness in Washington.



Photo courtesy of Wikipedia

Although frequently present in oysters and other bivalve mollusks, *V. parahaemolyticus* generally does not reach levels high enough to cause illness. However, there can be rapid growth of *V. parahaemolyticus* to levels that result in infection if the harvested seafood is not kept at refrigerator temperatures ($\leq 5^{\circ}\text{C}$ or 40°F). *V. parahaemolyticus* infection causes profuse watery diarrhea, vomiting, and fever. The incubation period is eight to 72 hours. Symptoms may last several days to a week and the diarrhea can be severe. Rarely the resulting dehydration can be life threatening.

As we enter the warmer summer months, it is important to re-emphasize that control of illness due to *V. parahaemolyticus* includes actions on the part of public health agencies, health care providers, shellfish suppliers, and consumers.

New Vibrio Control Plan

In response to the outbreak of 2006, DOH established a new State Vibrio Control Plan <<http://www.doh.wa.gov/ehp/sf/VpEmergencyRule246-282-006.doc>> addressing shellfish safety. DOH Office of Shellfish and Water Protection, Food Safety Program, Communicable Disease Epidemiology, and Public Health Laboratories collaborated with external partners including the commercial shellfish industry, Centers for Disease Control and Prevention, the Food and Drug Administration, Tribes, and other states and Canada to develop the plan.

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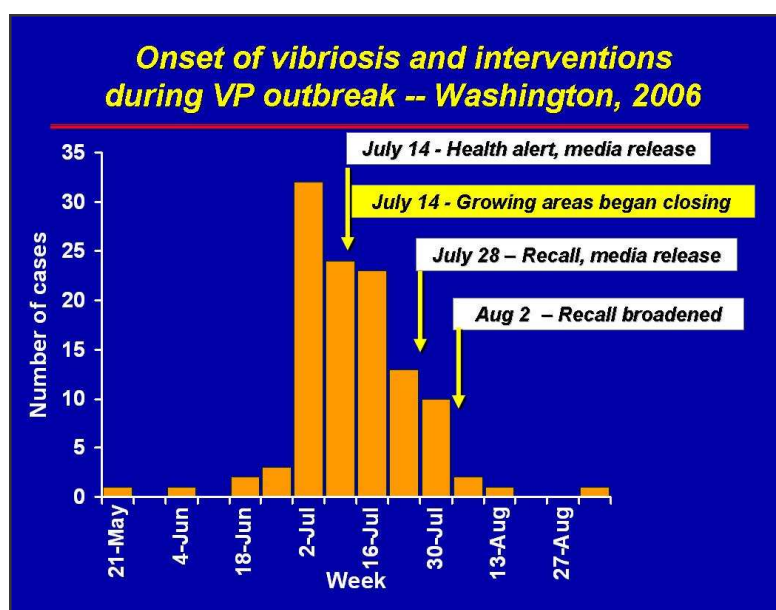
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The plan is designed to implement stricter requirements during the months of June through September relating to the harvest and shipment of oysters intended for raw consumption. Features of the plan include reduction in time to get shellfish under refrigeration after harvesting, increase in number of shellfish growing areas regularly monitored for *Vibrio* levels, and new sampling strategies designed to test product exposed to highest ambient temperatures.

Commercial companies operating in 24 specific shellfish growing areas will participate in the control plan during 2007. This includes using standardized handling procedures for harvesting oysters to prevent elevated temperatures. The accuracy of information provided on licensed shellfish tags has been reviewed by DOH and companies will receive technical assistance to bring them into compliance with tagging requirements.

During 2006 the actions needed to interrupt the *V. parahaemolyticus* (VP) outbreak rested firmly on public health surveillance for human illness, as existing shellfish monitoring strategies did not detect an increased risk in time to prevent the outbreak.



Washington State Department of Health — Communicable Disease Epidemiology Section

Local health jurisdictions (LHJs) continue to play a key role in limiting the impact of shellfish associated illness. Actions available to LHJs include encouraging health care providers and local laboratories to report cases, promptly initiating traceback investigations, assessing shellfish handling conditions at the retail level, and immediately reporting cases and shellfish source information to DOH. The investigation and immediate reporting of all suspected shellfish-associated illness including foodborne illness complaints, single case reports, as well as outbreaks, is needed for early identification of source contamination and to prevent additional illnesses.

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epiTRENDS Monthly Posting Alert

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[http://
listserv.wa.gov/
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Choose the option to join the listserve. Enter your name and email address.

Vibrosis is notifiable to local health jurisdictions. Health care providers and health care facilities should report suspect and confirmed cases to the appropriate local health jurisdiction (<http://www.doh.wa.gov/LHJMap/LHJMap.htm>). Laboratories, while not required by law to report isolation of *Vibrio* species to public health, make a valuable contribution when reporting voluntarily, particularly in health care systems where providers rely on laboratory reporting.



Recreational consumption of raw "oyster shooter" — Credit: Laura Slaybaugh

The local health jurisdiction conducts an interview to determine the specific products consumed by the case patient. Public health agencies contact commercial sources of implicated shellfish in order to identify the harvest site. Restaurants and markets provide tags from their shellfish which allow the trace back linking the purchases to the specific beds where the implicated product was harvested. Timely illness reports are a crucial element in the ability to implement appropriate harvest restrictions.

Recommendations

Lastly, before enjoying the fruits of our rich Puget Sound tidelands, recreational shellfish harvesters and consumers should heed the following recommendations:

- Always check the health status of the harvest beach at DOH's Recreational Beach Maps <<http://ww4.doh.wa.gov/scripts/esrimap.dll?name=biowiew&Cmd=Map&Step=1>>, or link from <<http://www.doh.wa.gov/ehp/sf/>>
- Harvest as soon as possible after the tide goes out (at the beginning of the tide cycle instead of at the end)
- Do not harvest oysters that have been exposed to direct sunlight for more than one hour
- Place oysters under refrigeration or on ice as soon as possible
- Cooking will destroy *Vibrio*. To reduce the risk of illness, thoroughly cook shellfish (heat oysters to 145°F) and avoid contamination of food with raw shellfish or their juices
- Immunocompromised persons should never consume raw shellfish.

New "Rabies Specimen Packaging Procedure" Quick Reference

During the warmer months, the Public Health Laboratories receive an increased number of calls regarding correct packaging and shipping of specimens for rabies testing. The quick reference page that follows is provided for the convenience of local health jurisdiction personnel who answer questions regarding collection, packaging, and shipping of specimens for rabies testing.

For complete written guidelines on rabies specimen collection, go to:

http://www.doh.wa.gov/notify/other/rabiesspecimenguidelines_Aug06.pdf

Additional copies of the reference page can be download from:

<http://www.doh.wa.gov/Notify/other/rabiesspec.pdf>

Rabies Specimen Packaging Procedure

- NOTE: Only veterinarians or qualified animal control officers should handle the animal. Take care when severing the animal head, leave 2 cervical vertebrae attached. For bats, send entire animal. Do not damage the brain. Keep refrigerated. Do not freeze (delays testing). Ship promptly. NO LIVE ANIMALS! The shipping instructions below meet US DOT regulations.**

1. Preparation

- Wrap head and the 2 attached cervical vertebrae (or whole bat) in 2 plastic bags, one inside the other ("double bag")
- Place wrapped head (or bat) in rigid leak-proof container provided by PHL ("secondary container")
- Apply BioHazard label to container



2. Packaging

- Place properly sealed and BioHazard labeled secondary container into Air-Sea box (outer container provided to LHJs by PHL)
- Pack with frozen ice packs around secondary container



3. Forms

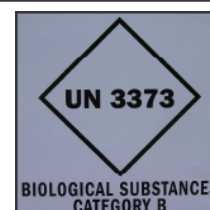
- Note: All specimens must be pre-approved by LHJs and DOH CD Epi prior to submission for testing**
- Fill out form completely, both sides
- One form per specimen
- Place form in separate sealed plastic bag
- Place form in outer container with specimen (but NOT with head or bat inside secondary container!)

Form available online at:

- <http://www.doh.wa.gov/notify/forms/rabiesspec.pdf>

4. Labeling

- Seal box for shipping
- Check that the UN 3373 label is on the side of the shipping box
- Write shipper's name and phone number on outside of box



5. Addressing / Shipping

- Ensure the "From" and "To" addresses are correctly labeled on the box
- Keep a copy of the bus or FedEx bill for the tracking number!**

Ship by bus, FedEx, or vehicle to:

**Public Health Laboratories
ATTN: Virology Lab
1610 NE 150th St.
Shoreline, WA 98155-9701**

Questions?

**Epidemiology 24-hours:
(206) 418-5500 / 1-877-539-4344**

**Virology: (206) 418-5458
FAX: (206) 418-5485**



For complete written guidelines on this procedure, see:
http://www.doh.wa.gov/notify/other/rabiesspecimenguidelines_Aug06.pdf

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